



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

May 11, 1983

Mr. Tom Robison  
General Manager  
Western Clay Company  
P.O. Box 1064  
Aurora, Utah 84620

RE: Permitting  
Western Clay Company  
Redmond Bentonite Pit  
ACT/041/012  
Sevier County, Utah

Dear Mr. Robison:

Thank you for accompanying us on our May 5th tour of the bentonite pit. It proved very useful in refining our comments to better represent the situation.

Please find the enclosed comments regarding your Mining and Reclamation Plan (MRP) as described under Form MR-1. As you are aware, given the time frame attached to Lease #ML 1937 by the Land Board tentative approval and publication of a Notice to Public and Interested Parties pursuant to Rule M-4 will be necessary by June 1, 1983.

Thus, we will be expecting your earliest response. If we may be of assistance in any way please call Thomas L. Portle of my staff.

Sincerely,

JAMES W. SMITH, JR.  
COORDINATOR  
MINED LAND DEVELOPMENT

JWS/TLP:lm

cc: John Blake, State Lands  
Pam Grubaugh-Littig, DOGM  
Wayne Hedberg, DOGM  
Sue Linner, DOGM  
Tom Portle, DOGM



DIVISION COMMENTS  
ON WESTERN CLAY'S  
BENTONITE PIT

Legal and Financial

Title 40-8-18 (1) - (TLP)

The operator, on page 4-B, indicates that the potential exists for expansion into an additional 2 - 5 acres in the vicinity of the current operation. The operator should commit to notification of the Division at least 60 days prior to any expansion to allow ample time for permitting and bonding according to 40-8-18 (1) of the Utah Mined Land Reclamation Act of 1975 Title 40-8.

Title 40-8-13 (1) - (DWH)

The operator must furnish evidence in the form of acceptable insurance policies or other factual data that said operator will be financially responsible during the proposed mining operations for the payment of off-site public liability or property damage claims for which he may become liable.

Page 1 of Form MR-1 #4 lists the location of the operation in Sevier County, T. 2 S., R. 1 W., section 2. Upon examination of page 3-C it appears that the township should be 21 south. It is assumed that T. 2 S. is a typo and the Division has changed the application accordingly. If this is not the case, please advise.

The estimated mine permit term is set for 25 years (life of mine). Does the operator wish to bond for that time period? The operator might consider bonding for the amount of current and project disturbance for a 3 - 5 year period. This could substantially reduce the amount of the performance bond to be filed with the Division for reclamation purposes.

MR-1, page 7 of 12 (#22-C)

The Division suggests that appropriate warning signs also be posted near the open pits and exposed highwalls.

Rule M-10 (11) Sediment Control - (DWH)

The operator must implement sufficient sediment control measures to minimize sediment losses from the permit area to off-site adjacent areas.

Pumped discharges from the active pit(s) which currently flow rather indiscriminantly off-site to an adjacent field, may require pre-treatment to



remove suspended sediment. The extent of pre-treatment necessary will depend upon the results of the water analysis to be provided to the Division prior to the occurrence of future discharges from the pit(s).

Due to the infrequent nature of the (seasonal) discharge from the pit(s) and the minor quantity of water pumped, a written release or request from the adjacent land owner which permits the operator to discharge said water onto the adjacent fields may help to resolve this issue.

Proper maintenance of all access/haul roads on the permit area must be provided to insure that erosion and sediment losses are minimized. If erosional problems become evident, then supplemental sediment control measures must be implemented to correct the situation. This could include a system or combination of berms, check dams, straw bales, silt fences, water bars, etc. to control runoff and minimize sediment losses from the roads.

### Biology

#### Rule M-3 (2)(e) - SCL

The applicant states that topsoil stockpiles will be seeded with a mixture of species (question #2 1C), but does not give details on seeding rate or season of seeding. Please reply to these areas.

The reclamation plan (p. 10.B) should include the step of testing replaced soil material and possible fertilization based on the results of that analysis, prior to any reseedling.

The seed mix proposed for reclamation is acceptable to the Division; however, the applicant may want to consider decreasing the amount of Sand Dropseed in the mix to 1 lb. pure live seed per acre, or less, due to the large number of seeds per pound (approximately 5 1/2 million) of this species.

#### Rule M-3 (2)(f) - (SCL)

The applicant must submit a detailed timetable for the accomplishment of each major step in the reclamation plan. The timetable presented on page 10.C is much too general.

#### Rule M-10 (12) - (SCL)

Funds for the monitoring of reclaimed areas were included in the bond estimate. The applicant should indicate what method(s) will be used to monitor success and when (time of year) monitoring will be done.

### Test Plots

Soil samples were taken on May 5, 1983 and submitted for analysis.

A Division on-site consultation has been done with regard to test plot siting as per page 8.E of the application. A letter containing suggested treatments is forthcoming (TLP).



Topsoil - Baseline Data

Topsoil Removal

M-10 (14) - (TLP)

The operator states that "an area approximately 3 acres will be stripped of topsoil in item 15.A.(2). It is the assumption of the Division that the area in question has already been affected. Has stripping been done or is this a proposal for future activities?

Topsoil Storage and Protection

How was the topsoil volume figure cited in 21.B. figured? (.67 feet X 43,560 sq. ft. X 3 acres / 27 = 3243 cubic yards.) Please clarify.

The above-mentioned map should include details showing how drainages will be routed away from storage sites, etc. What is the anticipated final storage volume at each topsoil storage area?

Soil Redistribution

At what season of the year will soil redistribution occur?

The operator will need to perform some soil testing prior to redistribution of soil to allow for the identification of any necessary soil amendments. This information when combined with results from test plots will yield an informed approach to applying supplemental nutrients necessary to expedite the revegetation hence bond retrieval. What tests will be performed prior to reseedling?

Grading and Regrading

M-3 (2)(d) - (TLP)

What will be done to prepare the surface material prior to topsoil redistribution? As it is clay in nature treatment is probably necessary so as to prevent slippage surfaces. Information gained from test plots may prove useful in addressing this concern.

Highwalls

M-10 (5) - (TLP)

The operator states that highwalls will be eliminated "where feasible" [23.B.(a) and C.4.(c)]. What areas would it not be feasible? Why? Please delineate these areas. In 23.B.(d) the application speaks to possible



terracing activities. Again, what is meant by "where feasible"? What will be the size of terraces? What would be the vertical distance between terraces? How would terraces be sloped?

M-10 (3), (4) and (5) - (CJY)

Proposed post-mining cross sections of the pit areas indicate that the pits will be graded but left with a topography conducive to self-impoundment of water. It would be preferable to have the pits filled in and graded to as near the surrounding topography as possible.

The operator may be granted more time for consideration of other optional uses of the pit. These may include a sanitary landfill, hazardous waste disposal, fill material and fencing provisions as they relate to each option. Please include any and all efforts made in this regard over time on your Annual Operations and Progress Report pursuant to Rule M-8(b). (TLP)

Please provide a written statement stating your intent to pursue one of these options, if applicable. (TLP)



DIVISION OF OIL, GAS, AND MINING  
BOND ESTIMATE

OPERATOR: Western Clay Company  
MINE NAME: Redmond Bentonite Pit  
LOCATION: Sec. 2, T. 21 S., R. 1 W.  
COUNTY: Sevier  
DATE: May 12, 1983

	Operation	Amount	Rate	Cost	
A.	CLEAN-UP				
	1. Removal of structures & equipment.	General			
	2. Removal of trash & debris.	Clean-Up		\$ 100.00	
	3. Leveling of ancillary facilities pads and access roads.				
B.	REGRADEING & RECONTOURING				
	1. Earthwork including haulage and grading of spoils, waste and overburden.	24 hrs Cat D-7 13.5 hrs	\$132.50/hr	3,180.00	
	2. Recontouring of highwalls and excavations.	621-D Scraper	\$180.00/hr	2,430.00	
	3. Spreading of soil or surficial materials.				
C.	STABILIZATION				
	1. Soil preparation, scarification, fertilization, etc.	4 ac*	\$68.90/ac	275.00	
	2. Seeding or planting.	2 hrs equipment	\$40/hr	80.00	
	3. Construction of terraces, waterbars, etc.				
D.	LABOR				
	1. Supervision.	Operator--41hrs	\$15/hr	615.00	
	2. Labor exclusive of bulldozer time.	Seeding--10 hrs	\$10/hr	100.00	
E.	SAFETY				
	1. Erection of fences, portal coverings, etc. (Berms on highwalls)	4 hrs (D-7)	\$132.50/hr	530.00	
	2. Removal or neutralization of explosive or hazardous materials. Fencing (chain link)	500 linear ft	\$7.60/ft	3,800.00	
F.	MONITORING				
	1. Continuing or periodic monitoring, sampling & testing deemed necessary.	1 da/yr for 3 yrs	\$120/day	360.00	
				\$11,470.00	
			10% cont.	1,147.00	
				\$12,617.00	
G.	OTHER *4 ac reseeded because 20% will be bentonite stabilized slopes.		(2,523/ac)		1983 Dollar
	1984 - \$13,879	1986 - \$16,793			
	1985 - \$15,267				